

SOME NOTES ON SCIURUS FINLAYSONI, AND OTHER SQUIRRELS OF SIAM.

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Through the kindness of Dr. Malcolm Smith I have recently received from Lopburi, two fresh spirit specimens of the "white" squirrel of Siam (*Sciurus finlaysoni finlaysoni*, Horsfield).

As our knowledge of this species is very slight and is based mainly on old and badly-prepared specimens I have taken the following measurements of these two examples and, in order that the difference in size between them and my recently described *Sciurus finlaysoni portus* from Koh Si Chang may be seen at a glance, have placed in a third column the *maximum* dimensions from the table of measurements accompanying my account of that small island race.¹

	<i>S. f. finlaysoni</i>		<i>S. f. portus</i>
	Lopburi		Ko Si Chang
	Male	Female	Maximum, both sexes.
Head and body	210	207	202
Tail	207	218	193
Hind foot	48	49	44.5
Skull :—			
Greatest length ...	51.3	53.0	47.7
Condylar-basilar length	43.0	44.0	41.0
Palatilar length ...	20.9	21.2	20.0
Diastema ...	11.2	11.4	10.7
Upper molar row ...	10.0	10.4	9.5
Interorbital breadth ...	19.9	19.0	17.0
Zygomatic breadth ...	32.3	31.6	28
Median nasal length ...	14.7	17.0	13

A large series of the mainland animal would doubtless show much greater differences than are evident here, but even with the present material these are sufficiently distinct.

1. *antea*, p. 157.

In the account of *S. f. portus* it was stated that that race was rather yellower than the mainland form, but the fresh material shows that the contrary is the case especially about the rump and base of tail. In both races the base of the fur of the upper side is pale grey; the large series of *S. f. portus* (26 examples) is very variable in that respect; many are as grey as the mainland pair but again many have the grey very pale and confined to the extreme roots of the hair.

There are no other differences between the two: both have black eye and soles.

Dr. Anderson when discussing the squirrels of this type² classed them all as forms of *Sciurus ferrugineus*, F. Cuv., but, *finlaysoni*, dating from 1824, is the older name in the group if we admit the relatedness of many of the squirrels of Burma and Siam as Anderson maintained. The latest review of them is that of Mr. R. C. Wroughton in the *Annals and Magazine of Natural History*³ under the title "On the forms of Squirrel hitherto classed under *Sc. finlaysoni*, Horsf."

Therein *S. ferrugineus* of Burma and *S. cinnamomeus*, Temm., of Siam are given rank as distinct species on the ground that the former has black feet while the latter has not, but the reason seems inadequate for regarding these as other than subspecies of *ferrugineus*.

Further it seems to me possible to arrange the forms dealt with by Mr. Wroughton in such a way that their affinities are more clearly shown than is the case in his valuable paper. The present notes, however, are only of a tentative nature for I have had no opportunity to see the whole of the material of which they treat.

First then come the red *ferrugineus* with the subspecies *cinnamomeus* (and possibly other races to be distinguished from the mainland), together with *frandseni*, mihi, from Koh Chang: these are large squirrels with a greatest length of skull of about 56 mm. and appear to be quite distinct from those mentioned below.

Next, on account of similar size, may be placed *harmandi* M-Edw., of Phu Quoc and *albivivilli*, mihi, of Koh Kut, both of which, being island forms, we may for the present regard as species though perhaps related to those following.

Of the remaining animals the white *finlaysoni*, Horsf. is recorded from the course of the Menam south of Pichit, the Korat

2. *Anat. and Zool. Researches* p. 243 (1878).

3. *Series 8*, vol. ii. p. 393, Nov. 1908.

AND OTHER SQUIRRELS OF STAM.

Plateau and east to Chantabun. Over much of the same country occurs a form (skull length about 50 mm.) to which the name *bocourti* was applied by Milne-Edwards (type from Ayuthia), but this is such an unstable squirrel and so many of the examples are nearly white (Anderson records specimens "white marked by great brown spots"), that it is possible the name is invalid, being applied to aberrations of *finlaysoni* with which it closely agrees in size as do the geographical races *sinistralis* (skull length about 49 mm.) from the Upper Menam above Pichit, *dextralis* (skull length about 52 mm.) from the Meping below Raheng, *lylei* (skull length about 54 mm.) from Chiengmai, and *nox* (skull length about 53.5 mm.) from Siracha S. E. of Bangkok, all described by Wroughton in the paper mentioned.

The insular forms *portus* and *folletti*, *mih*, from Koh Si Chang and Koh Phai, with *germaini*, M-Edw., from Poulo Condore are naturally smaller (skull lengths about 47 mm.) having regard to the kind of island they occupy. The two former are subspecies of *finlaysoni*, but the black *germaini* is so fixed and its locality so isolated and remote that it may now well be regarded as a distinct species though in appearance but a miniature *nox*, or *albivexilli*. From the white *finlaysoni* to the black *nox* there is, one way or another through the other forms, a complete gradation of colour.

These conclusions may be tabulated somewhat after this fashion.

Mainland	Islands
sp. ferrugineus	subsp. frandseni
subsp. cinnamomeus	sp. harmandi
	sp. albivexilli
sp. finlaysoni	subsp. portus
	subsp. folletti
? sp. bocourti	
subsp. sinistralis	
subsp. dextralis	
subsp. lylei	
subsp. nox	
	sp. germaini

There remains one more squirrel, *S. floweri*, Bonhote,⁴ known from a single specimen from Klong Morn near Bangkok. Though the author states that it is adult, the skull is smaller (greatest length 44 mm.) than the island races of *finlaysoni*: in colour, however, the specimen appears to resemble animals which have been classed as *bocourti*. Until we know more about it, it is impossible to say whether it is a good form and, if so, what its relationships are.⁵



4. *Ann. and Mag. Nat. Hist.*, Series 7, Vol. VII, p. 455 (1901).

5. If any member of the Society would help to clear up this question by collecting squirrels in the neighbourhood of Bangkok I should welcome the opportunity of examining them. Specimens are most easily preserved in methylated spirits or a five per cent. solution of formalin. They should be opened up along the underside of the body, gutted and washed before immersion.